

**INDUSTRIAL TRAINING DEPARTMENT
(KERALA STATE)**

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No: ITI-CHCK/233/2021-B4

Date: **25.08.2021**

E TENDER NOTICE

TENDER No:B4/23/2021

Competitive **e-tenders** are invited from approved firms / companies/ traders for the supply of Equipments, for training purpose related to Strive Project, at Government Industrial Training Institute (ITI) , Chackai , Kerala. The name of item, required number etc. are listed below:

Required Items

Pneumatic Items for various Trade

Tender Specification and Schedule

Sl. No.	Name of Items	Detailed Specifications	Trade / Course for which it is Required	Total Required
1	Pneumatic calibrator	For calibration of vacuum gauges, pressure gauges, pressure switches, pressure transmitters, etc. Alpha Numeric LCD/LED Display, Switch Test Facility, Zero setting, Units Selectable, up to 25 Ma Measurement & Voltage Measurements and Pneumatic hand pump for Pressure & Vacuum. -0.85 to 10 Bar Range, Rechargeable Battery. Installation and Commissioning done by the suppliers. Warranty - 1 year	Instrument Mechanic	1
2	Simple tank type quantity meter	SS 304 matt finished tank with sight glass level indicator and scale for level measurement 1000mm with marking. Capacity of tank - 25L SS pump for tank filling and SS 304 matt finished sump tank of sufficient	Instrument Mechanic	1

		for draining the water with necessary valves for the measurement application. all circulation line be rust-free material. Electrical starter panel must be included. Installation and Commissioning done by the suppliers. Warranty - 1 year		
3	Differential pressure transmitter (pneumatic)	Pneumatic differential pressure transmitter - ABB/Honeywell/Siemens brand. Max. Air Supply: 50psi, Output: 3-15psi, DP pressure: up to 1000psi. Full setup for creating DP including precision regulators to manipulate differential pressure, proper arrangement for displaying the output. Alarm Facility Accessories : Cooling Housing , Air purge unit . Installation and Commissioning done by the suppliers. Warranty - 1 year	Instrument Mechanic	1
4	Differential pressure transmitter (electronic -HART/field bus type)	Make : ABB/YOKOGAWA/SIEMENS Supply Voltage : +24V DC Output Voltage : 4ma to 20ma Cable Entry : 2 X 1/2" BSP, SC gland brass User Interface : LCD display Read out : 0 - 100%, 4-20mA lcd display Outputs : 4-20 mA output (2 wire) compatible with PLC Measurement range : 0-1000mmwc. Accuracy : ±0.075% of the calibrated span Calibration : possible through switches communication : HART communication Full setup for creating DP including precision regulators to manipulate differential pressure, proper arrangement for displaying the output. Installation and Commissioning done by the suppliers. Warranty - 1 year	Instrument Mechanic	1
5	Impeller type flow meter	Impeller flow meter Range : 100-1000 lph Output : Pulse Display: 4 digit accuracy to show the flow Rotameter : 100-1000lph of Material Clear acrylic or glass Pipe size : 1 inch/0.5 inch of SS or PPR Water pump : SS material. setup with the full accessories including valves to control the flow and take the	Instrument Mechanic	1

		<p>measurements</p> <p>Test points : Banana sockets</p> <p>Installation and Commissioning done by the suppliers . Warranty - 1 year</p>		
6	Pitot tube flow meter	<p>Suitable range pitot tube flow meter for air velocity measurement, with Perspex, long smooth walled pipe, air blower, inclined cum vertical manometer, all fitted on framework Installation and Commissioning done by the suppliers. Warranty - 1 year</p>	Instrument Mechanic	1
7	Vortex flow meter	<p>Vortex flow Transmitter with hart communication</p> <p>Transducer type : vortex type</p> <p>make : ABB,YOKOGAWA,SIEMENS</p> <p>Output : 4ma to 20ma</p> <p>Process connection:1/2" ASME flange</p> <p>Cable Entry : 2 X 1/2" BSP, SC gland brass</p> <p>compatible with PLC Measurement</p> <p>range :200-1000LPH as 4-20Ma analog</p> <p>Calibration : possible through switches</p> <p>Accuracy :0.2% of span</p> <p>Rotameter :100-1000lph of Material</p> <p>Clear acrylic or glass</p> <p>Pipe size : 1 inch/0.5 inch of SS or PPR</p> <p>Water pump :SS material.</p> <p>setup with the full acceries including valves to control the flow and take the measurements</p> <p>Test points : Banana sockets</p> <p>Installation and Commissioning done by the suppliers . Warranty - 1 year</p>	Instrument Mechanic	1
8	Pneumatic and hydraulic actuators	<p>Combined setup for pneumatic and hydrolic demonstration.</p> <p>Double acting cylinder Max. stroke length 200 mm, Bore dia 20 mm, magnetic type,single acting cylinder Max. stroke length 200 mm, Bore dia 20 mm, magnetic type,3/2-way valve manually-actuated,spring return 1nos,5/2-way valve with manually-operated switch 1nos,3/2-way roller lever valve direct actuation single sided,spring return 1nos flow control valve 2nos,Shuttle valve (OR) 1nos,Two-pressure valve (AND) 1nos,Pressure gauge 0-10 bar</p> <p>Double acting hydraulic cylinder with a Stroke length 200 mm,Pressure relief valves Pilot-operated, Options for</p>	Instrument Mechanic	1

		pressure adjustment with Set Screw and Lock Nut or with Hand Knob and Lock Nut, Pressure gauge Glycerin - Damped, Indication Range of 0-100 bar with auxiliary pressure tap. 1/4" BSP, 3/2-way directional control valve With Hand Lever Actuation. Spring reset. On base plate with Quick Fit Male Connectors, 4/2-way directional control valve With Hand Lever Actuation. Spring reset. On base plate with Four Quick Fit Male Connectors. including hydraulic with 10 liter tank, includes all accessories like filters, view glass and gear pump, motor and oil. for both pneumatic and hydrolic setup requires Complete arrangement to be fitted on MS fabricated powder coated Table with necessary accessories including hoses, fittings as required. Installation and Commissioning done by the suppliers . Warranty - 1 year		
9	Flow meter	0-400 lt/min , Analog with copper couplings.	Pump Operator Cum Mechanic	2

The tenderers should have the necessary portal enrolment (with their own **Digital Signature Certificate-DSC**).

1. Mode of submission of Tender : Tender should be submitted online through 'etenders.kerala.gov.in'

2. Date of publishing Tender : 25-08-2021

3. Date of start of downloading : 25-08-2021

4. Date of start of tender submission : 25-08-2021

5. Last date of tender downloading : 08-09-2021

6. Last date of Tender submission : 08-09-2021 05.00 PM

7. Date and time of Tender opening : 10-09-2021 11.00 AM

Principal reserves the right to reject any or all tenders without assigning any reason thereof

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Principal